ARIZONA GAME AND FISH DEPARTMENT
HABITAT PARTNERSHIP PROGRAM
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL

PROJECT INFORMATION

Project Title: Buffelgrass control in Units 37A. | **Project No. 09-509**

Region/GMU: 5/37A | **HPC:** Tucson

Project Type: Vegetation treatment

Project Description: A large group of agencies and organizations have recognized that Buffelgrass (*Pennisetum ciliare*), which is a listed Noxious Weed in the state of Arizona, has the potential to change the entire Sonoran desert from its present vegetative composition into a monoculture stand of buffelgrass. The rapid rate of spread and the fire adaptation of the species could totally dominate the area, resulting in the removal of native plant species such as the saguaro and the ironwood tree and convert the vegetation to something that is unsuitable for native wildlife species. There is an **estimated 8800 acres** of buffelgrass invaded lands within the boundaries of the Ironwood Forest National Monument.

Wildlife Species to Benefit: Mule Deer, Javelina, and Desert Bighorn sheep

Possible Funding Partners:

Implementation Schedule:
Beginning: July 2010
Completed: June 2011

PROJECT FUNDING

SBG Funds Requested: $ 45,000

Cost Share Funds: $65,000

Total Project Costs: $ 110,000

PARTICIPANT INFORMATION

Applicant: Bureau of Land Management,
Darrell Tersey
Telephone: 520-258-7218

Address:
12661 E. Broadway, Tucson, AZ 85748

AGFD Contact and Phone No. Bob Lemons 520-628-5376
(If applicant is not AGFD personnel)

Coordinated with: Bob Lemons, WM unit 37A, John Windes, R5 Habitat Spec.

Applicant's signature:

Date: August 27, 2009

SEND COMPLETED APPLICATIONS TO:
Game Branch
AZ Game and Fish Dept.
5000 W. Carefree Highway Phoenix, AZ 85086

NEED STATEMENT/PROBLEM ANALYSIS: Buffelgrass is an equal opportunity invader that respects no boundaries. It has already formed dense stands in parts of Saguaro National Park, the Coronado National Forest, Sabino Canyon, and other natural open spaces. It is hard to imagine Saguaro National Park without saguaros and Picacho Peak State Park without wildflowers. Scientists are greatly concerned about the potential for significant ecological impact to these and other ecological resources. The native plants most likely to be impacted by buffelgrass infestation and associated fires include saguaros, barrel cactus, palo verde trees, ironwood trees, native grasses and wildflowers. Additionally, wildlife habitat and forage will be compromised for animals that depend on native plants, such as the desert bighorn sheep, desert tortoise and mule deer. Saguaro girdling by pack rats has been observed in desert areas where most of the native vegetation has been replaced by buffelgrass. Mule deer habitat alteration as the result of buffelgrass infestation has been identified as a critical management issue by the Western Association of Fish and Wildlife Agencies, Mule Deer Working Group 2006. Buffelgrass invasion also has been a factor in the listing of the pigmy owl, and designating critical habitat, under the Endangered Species Act. There is an **estimated 8800 acres** of buffelgrass invaded lands within the boundaries of the Ironwood Forest National Monument.

PROJECT OBJECTIVES:
In addition to controlling buffelgrass, management goals described here address preserving and establishing native species to replace eradicated buffelgrass, protecting natural ecological communities from infestations, and preserving economic well-being. Based on guidance provided in this document, partners are encouraged to:

- Minimize the spread of buffelgrass in areas where it is not yet established;
- Set priorities for control, confinement and elimination of established buffelgrass populations based on their actual and potential impacts, and implement these control and elimination efforts;
- Promptly restore or rehabilitate areas treated for buffelgrass to establish desirable native species and reduce new invasions;
- In areas where buffelgrass control is no longer feasible mitigate risks to life and property resulting from buffelgrass infestations;

PROJECT STRATEGIES as identified in the Buffelgrass Strategic Plan: Once buffelgrass initially infests an area, it should be kept below ecologically and economically damaging levels and prevented from spreading to new areas. If an infestation expands, controlling around its edges prevents further spread, while long-term control efforts should focus on the remainder of the infestation. Buffelgrass control strategies need to utilize both integrated pest management principles and "best management practices." Utilize known effective controls (manual and chemical) and investigate new potentially effective chemical, biological and cultural controls.
Management Goal: Buffelgrass Treatment
Public and private land owners and managers shall protect life, property, and natural and cultural resources by preventing, controlling and reversing the spread of buffelgrass.
Implementation/ Action Items

1. Institute a minimum three-year treatment and management program, including associated funding needs, for each high priority buffelgrass infestation area.
2. Treat new buffelgrass patches in identified high priority-high risk buffelgrass infestation areas.
3. Treat high priority large buffelgrass populations starting along the patch perimeter and treat the infestation inward to reduce seed spread from the outer perimeter into adjacent non-infested areas.
4. Treat buffelgrass populations along roadways in high priority areas where they are the vector of buffelgrass spread.

5. Create firebreaks around, along, or between the largest, contiguous buffelgrass/ fountain grass infested areas within the high priority buffelgrass infestation areas.

6. Revegetate with an appropriate local native plant palette as necessary following each 3-year treatment window.

7. Use integrated pest management (IPM) practices for mechanical, chemical, and biological control methods in selected areas, where appropriate.

8. Hire and train seasonal and year-round crews to identify and treat buffelgrass infestations in high priority areas using mechanical and chemical methods.

9. Expand buffelgrass volunteer pull events to focus on high priority areas.

PROJECT LOCATION:
The project will occur in game management unit 37A on BLM lands located in Pima and Pinal Counties, Arizona, approximately 10-30 miles west of Tucson.

LAND OWNERSHIP AT PROJECT SITE (Please state specifically if PRIVATE PROPERTY and provide landowner's name):
Land ownership in each area is BLM lands.

IF PRIVATE PROPERTY, IS THERE A STEWARDSHIP AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT? N/A

HABITAT DESCRIPTION:
The project area (i.e., Game management unit 37A) is located in Pima and Pinal Counties, Arizona, approximately 110 km southeast of Phoenix. The project areas are located in a range of mountains and hills, with elevations from 600 to 1800 m. Topography ranges from steep and broken to gently rolling. Water is generally available in sparsely distributed cattle stock tanks and wildlife drinkers. Two main biotic community types, Arizona Upland and Semidesert Grassland, comprise the bulk of the mule deer and bighorn sheep habitat in the IFNM.

ITEMIZED USE OF FUNDS:

Category	Cost
Contracts for buffelgrass spraying and/or removal including administrative costs	$ 43,000
Other Operating Expenses * Field and Office equipment ("T" posts, GPS units, warning signs, safety equipment for field inspectors etc.)	$ 2,000
TOTAL	$45,000

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:
Tucson BLM – Operational Funds, Labor and vehicles for contracting, management and supervision. $55,000
Save the Waterman's – Volunteer Labor $10,000
Pima/Santa Cruz Basin Cooperative Weed Management Area - With appropriate assistance agreements, the management activities could also include Pima County lands that are within the IFNM.

PROJECT MONITORING PLAN: The project will be monitored by the BLM, and results will be used by Region V Game and Habitat Specialists and partners in the Southern Arizona Buffelgrass Strategic Plan, to monitor the effectiveness of the buffelgrass control strategies.

PROJECT MAINTENANCE: The project will need to be maintained for at least 3 years to ensure success at controlling the buffelgrass.

PROJECT COMPLETION REPORT TO BE FILED BY: Darrell Tersey, Natural Resource Specialist

WATER DEVELOPMENT PROJECTS (see attached worksheet): N/A

TREE SHEARING (AGRA-AXE, PUSH) PROJECTS (see attached worksheet): N/A

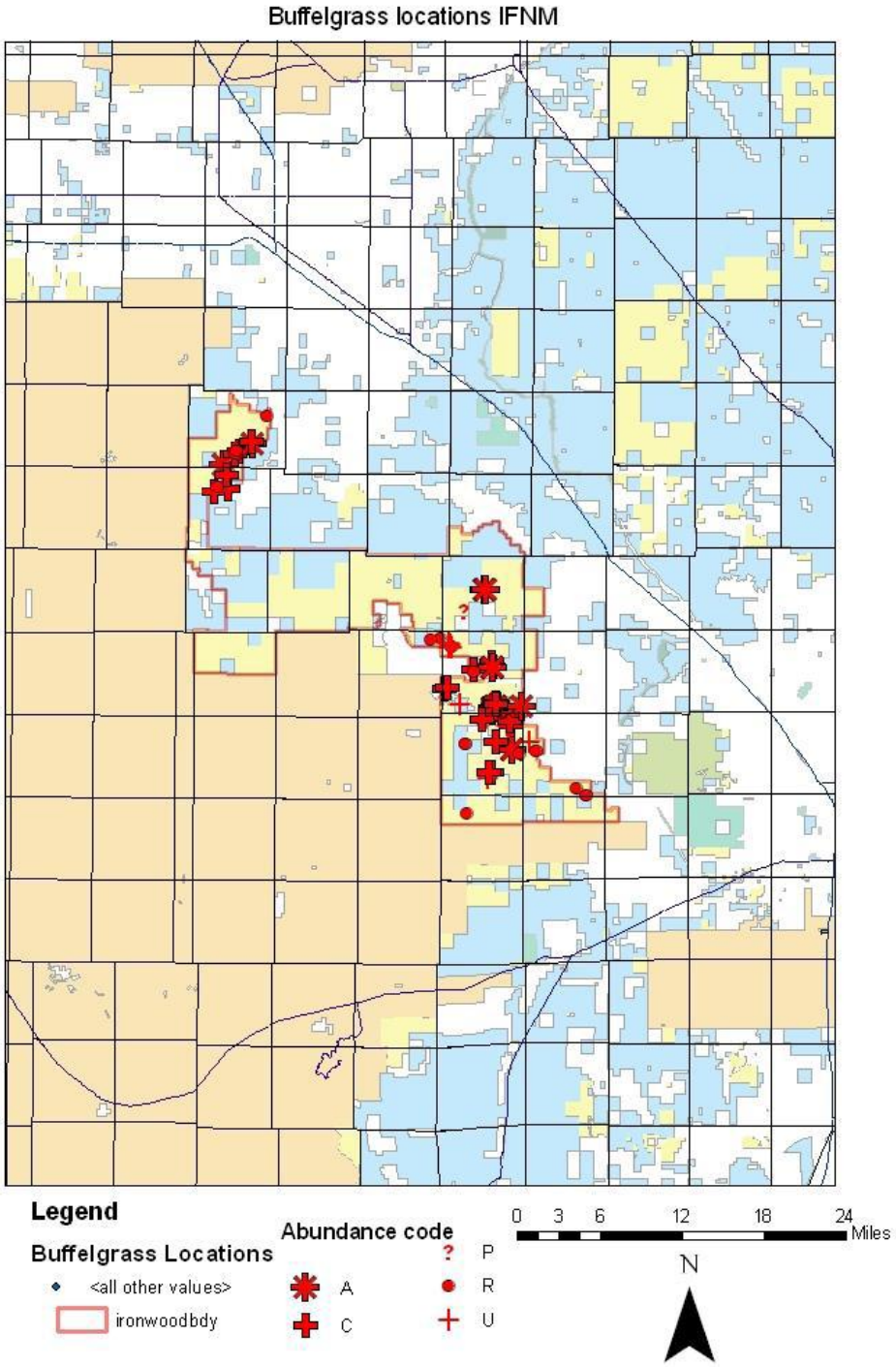
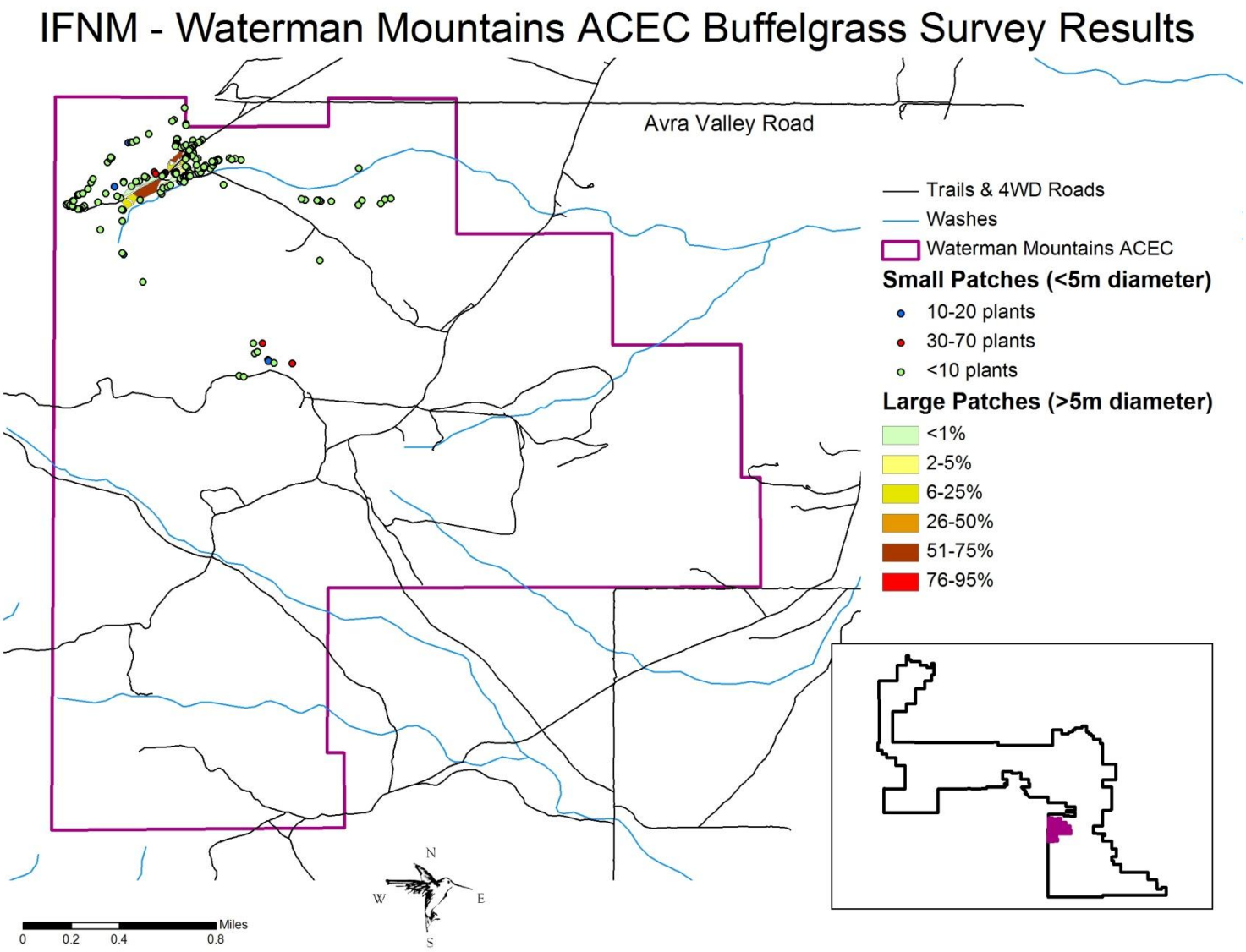


Figure 1. the Ironwood Forest National Monument is in Game management unit 37 and is approximately (185,000 acres) and is comprised of a mixture of Bureau of Land Management, State Lands, and Private Land ownership.


IFNM - Waterman Mountains ACEC Buffelgrass Survey Results
Avra Valley Road
Trails & 4WD Roads
Washes
Waterman Mountains ACEC
Small Patches (<5m diameter)
10-20 plants
30-70 plants
<10 plants
Large Patches (>5m diameter)
<1%
2-5%
6-25%
26-50%
51-75%
76-95%
N
W
E
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Miles
0
0.2
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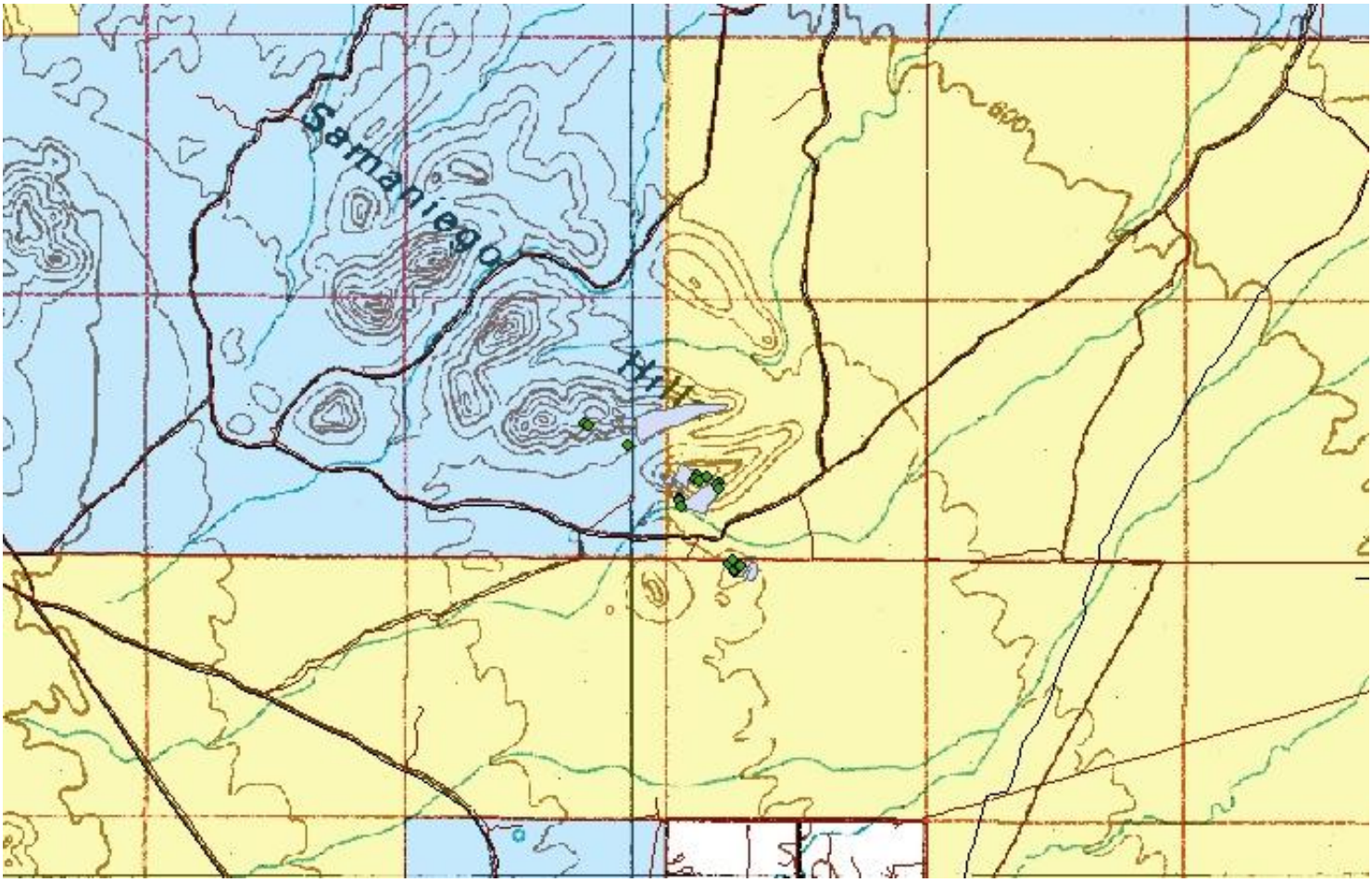
0.8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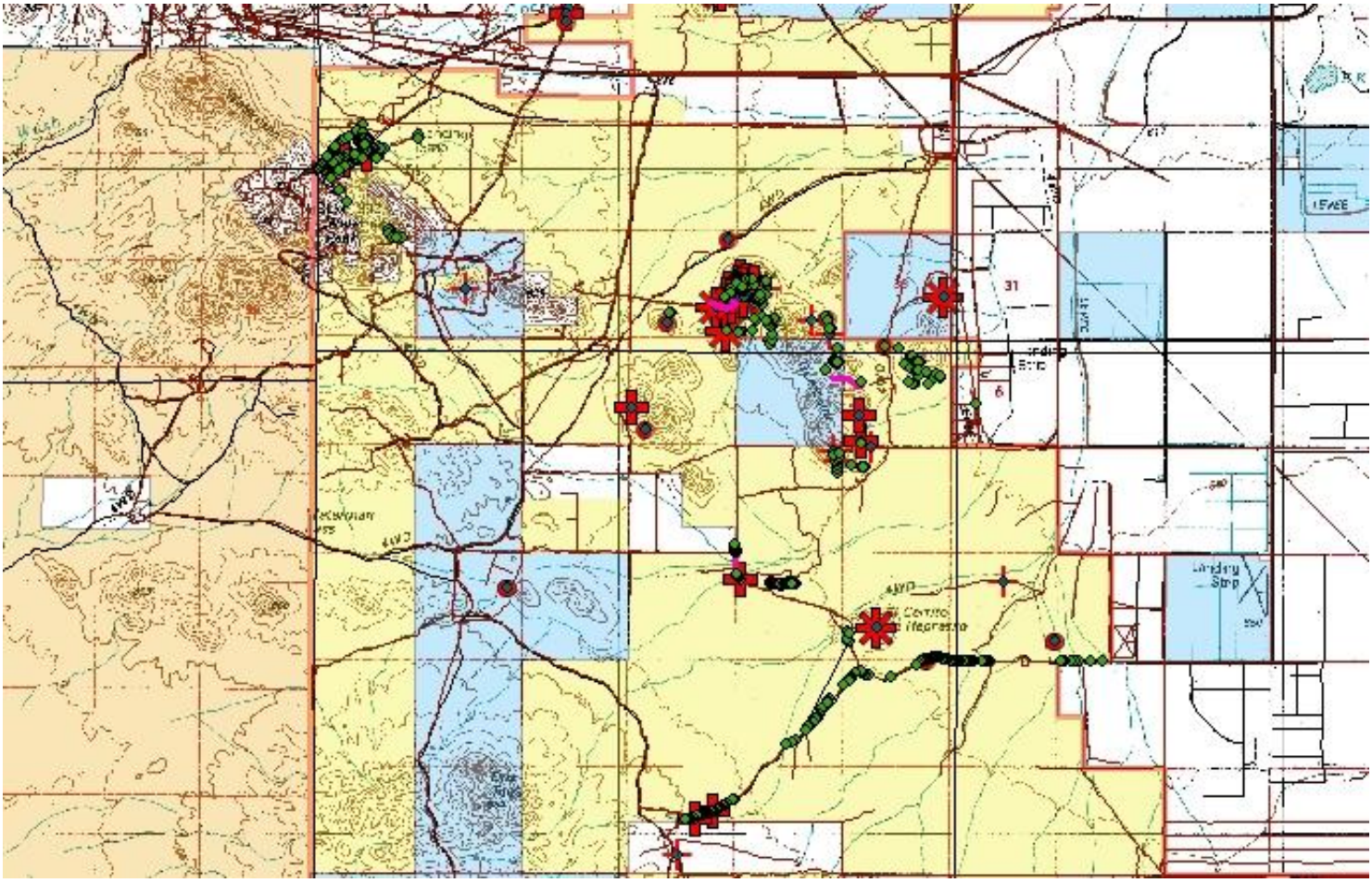
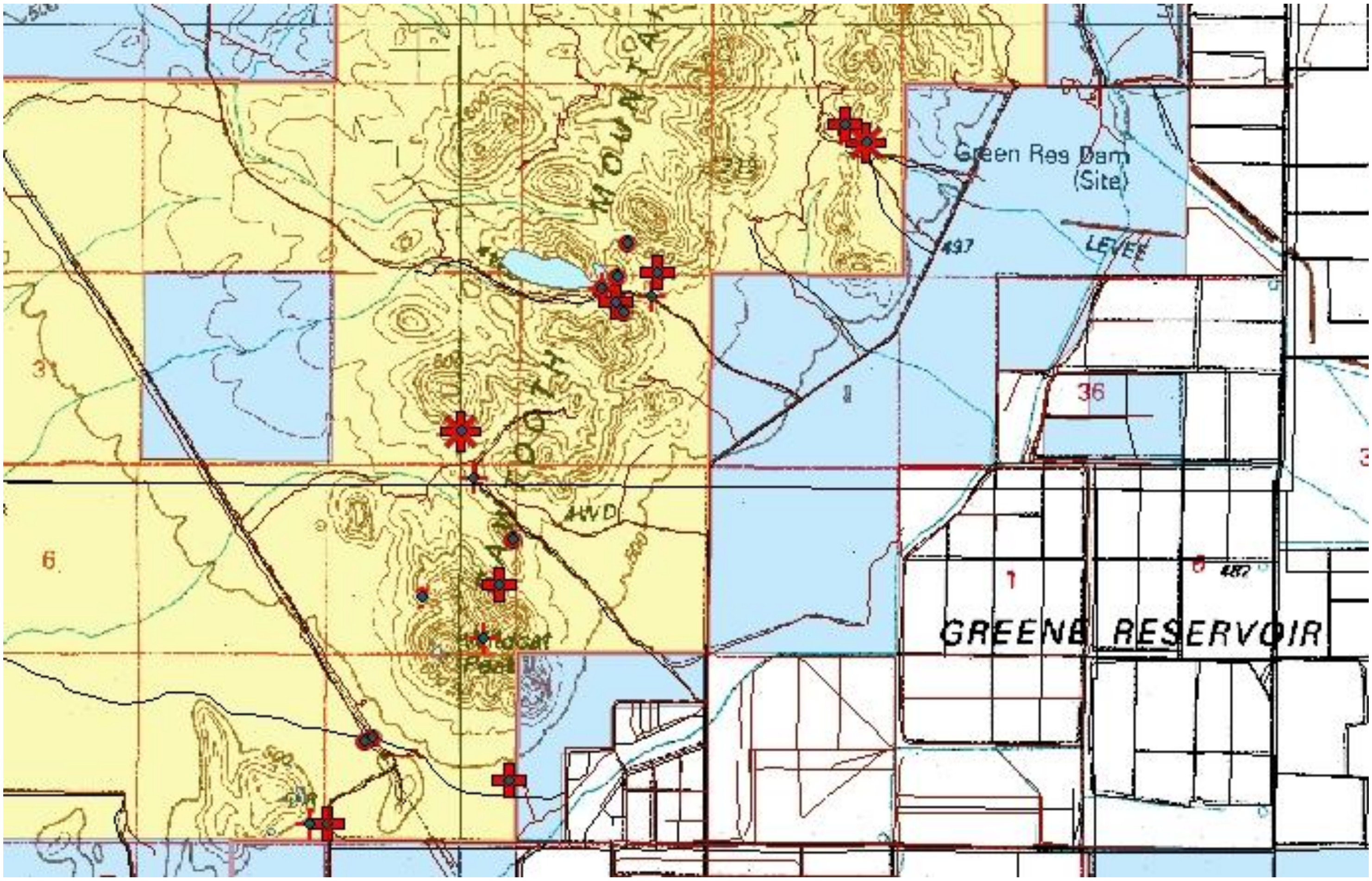

31
6
Landing Strip


Green Res Dam
(Site)
LEVEE
36
6
1
GREENE RESERVOIR